



NRC NEWS

U.S. NUCLEAR REGULATORY COMMISSION

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No. 04-157

December 9, 2004

NRC APPROVES EVALUATION METHOD FOR ANALYZING REACTOR CONTAINMENT SUMP PERFORMANCE

The Nuclear Regulatory Commission staff has approved an evaluation method for all operators of pressurized-water reactors (PWR) to use in analyzing containment sumps, part of a safety-related water recirculation system in nuclear power plants.

Operating experience at boiling water reactors (the other type of commercial U.S. nuclear power plant), as well as recent research, has indicated debris from certain pipe-break accidents inside a containment building could potentially block PWR sumps beyond what the original design could accommodate. NRC staff have concluded this issue is not an immediate safety concern, but the potential for greater sump blockage warrants plant-specific analyses to determine what actions, if any, are needed.

“Individual plants can now use this analysis method to definitively determine how their sumps would perform under accident conditions,” said Suzanne Black, Director of the Division of Systems Safety and Analysis in the NRC’s Office of Nuclear Reactor Regulation. “The plants will use the results to identify any modifications needed to ensure their core-cooling systems operate properly.”

The NRC asked for the evaluations Sept. 14 through a Generic Letter, one of several methods the NRC has for communicating with the nuclear industry. PWR operators now have until March 7, 2005, to:

- Describe the method to be used in evaluating the long-term core-cooling systems, as well as the anticipated completion date for the evaluation, and;
- Describe how the interior of each PWR containment building will be examined during the evaluation, as well as the anticipated completion date for the examination, or justify why no such examination is needed;

By Sept. 1, 2005, PWR operators must:

- Confirm that the Emergency Core Cooling System and Containment Spray System comply with NRC regulations, or will do so, including a description of the plant’s configuration once all modifications are finished, and;
- Provide a schedule for all corrective actions to be taken, starting no later than April 1, 2006, and finishing by Dec. 31, 2007.

The evaluation methodology is available on the NRC web site at:
<http://www.nrc.gov/reactors/operating/ops-experience/pwr-sump-performance.html> . The Web page also outlines NRC staff activities on the PWR containment sump issue. Help in obtaining NRC documents is available from the NRC's Public Document Room at 800-397-4209 or 301-415-4737.

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